

July 4, 1957

Dr. Joseph Lein
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Syracuse, N.Y.

Dear Joe:

I am rushing to finish up a manuscript on protoplasts and L-forms before we leave for Melbourne on August 1. One parenthesis, in connection with the behavior of the DAP auxotroph would be the failure of various related amino acids to serve as competitive antagonists (e.g. β -aminopimelic), as even a negative result can be of some use. Would you approve the inclusion of the compound you furnished (the disulfonic analog) in the list? If so, what attribution, if any, should be made as to the source?

The only compounds we tried, in a very recent experiment, were some available from California Biochemicals— they included DL- β -aminobutyric; D-alanine and D-glutamic, in addition to the mono aminopimelic just mentioned.

Have you any further encouragement on other DAP analogues?

It just occurs to me that Dienes reported 'inducing' L-forms with very high concentrations of certain amino acids, especially methionine—this is quite likely a competitive inhibition of incorporation of other amino acids into the wall, but also with an odd compound that Favour had reported as a not very useful antibacterial, carboxymethoxylamine, I think ($H_2N-O-CH_2COOH$). Have you ever run into this compound in any other connection? Have you any idea where one might get a sample pdq— it might be informative to find out what it antagonizes, if possible.

Sincerely,


Joshua Lederberg

P.S. I am enclosing a copy of our Australian itinerary, in case I had not sent it before. The mails are quite good, and there is no reason I should not be almost as accessible as here. Do let me know if there is anything in particular I might do at the local scene— and I will certainly be sending you some soil samples (though I suspect that 'exotic' localities are more worked over than our own back yards.)

JL